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25 August 2005

Chief Judge Sue L. Robinson United States District Court District of Delaware 844 North King Street Wilmington, DE 19801

Subject: Source Code Access — Versus Technologies, Inc. v. Radianse, Inc.,

Civil Action No. 04-1231-SLR

Dear Chief Judge Robinson:

As you requested in conference on 23 August 2005, this letter describes the utilities we are asking Radianse to install on a new escrowed laptop. It also provides some suggested enhancements for your "Default Standard for Access to Source Code".

We believe that the following set of utilities is the minimum necessary to support source code analysis in this case:

vi — The standard programmer's text editor, which provides searching capabilities, syntax highlighting, structure folding, and other features that expedite the analysis and understanding of source code. This editor also correctly displays non-DOS text files — some of the source files on the existing laptop are unreadable in Notepad, because they do not use DOS-style line breaks.

gre p — Searches through a set of files and lists all lines that match one or more patterns.

diff — Compares two files, listing their differences.

md5sum — Computes the checksums of one or more files. A checksum is a short (32 character) 'signature' for a file. It is essentially impossible to change a file, even by one letter, without altering its checksum. By comparing a file's current checksum to its original checksum (recorded when the computer was placed in escrow), we can detect any change to a file, inadvertent or otherwise.

find and **xargs** — 'Find' recursively visits a set of folders/directories, identifying files whose names or other attributes (such as modification date or size) match a set of criteria. 'Xargs' runs a specified utility over a set of source files. Together, these programs automate the processing of input files through the 'grep', 'diff', and 'md5sum' programs.

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We hereby request that Radianse provide these utilities by installing the following two packages on the escrowed PC:

Vim 6.3 — This is a cross-platform, open-source implementation of the 'vi' editor, available for free from http://www.vim.org.

UnxUtils — This package includes all of the utilities mentioned above, and is available at no cost from http://unxutils.sourceforge.net. UnxUtils actually contains a number of other useful programs beyond those requested above. However, UnxUtils allows Radianse to provide all of the requested functionality by installing a single package.

In addition to these tools, we request that Radianse:

- Include on the new computer all of the source, executable, and utility files on the currently-escrowed laptop.
- Include on the new computer all of the compilers, assemblers, and other utility programs (including the Apache Ant build utility) necessary to rebuild all of the executables, including the LanPak and LightPak executables, from source.
- Provide a manifest of all source and executable files placed on the escrowed computer, including the MD5 checksum of each file. This list should be provided in both printed and electronic form.
- Verify the correct operation of the newly-installed utility programs before epoxying the computer shut.

I will be happy to work with Radianse's technical personnel to expedite the preparation of this new escrowed computer. In particular, the preparation of the manifest is a trivial task; once the UnxUtils package is installed, the entire manifest can be generated by executing a single command.

Finally, in response to your request for enhancements to the "Default Standard for Access to Source Code", I have prepared several new paragraphs. The first paragraph codifies existing good software engineering practice, ensuring that all parties are fully informed of the contents of the escrowed source code:

6. The source code provider shall provide a manifest of the contents of the stand-alone computer. This manifest, which will be supplied in both printed and electronic form, will list the name, location, and MD5 checksum of every source and executable file escrowed on the computer.

The next new paragraph describes an abstract version of the text-analysis capabilities we have requested in the current case. Note that these capabilities are pre-installed on computers running every major operating system except Microsoft Windows (e.g., Macintosh, Linux, Unix, BSD, Solaris).

7. The stand-alone computer shall include software utilities which will allow counsel and experts to view, search, and analyze the source code. At a minimum, these utilites should provide the ability to (a) view, search, and line-number any source file, (b) search for a given pattern of text through a number of files, (c) compare two files and display their differences, and (d) compute the MD5 checksum of a file.

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For applications developed solely using an integrated development environment (IDE) such as Microsoft Visual Studio, the inclusion of Visual Studio on the escrowed computer would satisfy this requirement.

The final new paragraph addresses the issue of missing files. The provider of the source code may neglect to include a file on an escrowed computer, and it is difficult for a reviewer to determine whether one file out of thousands is missing. In many cases, the most accurate and expedient way to ensure that all files are present is to *compile* the source code into its executable form.

8. If directed by the court, the source code provider will include on the stand-alone computer the build scripts, compilers, assemblers, and other utilities necessary to rebuild the application from source code, along with instructions for their use.

For some systems, it may be difficult for the source code provider to comply with this requirement, because the escrowed computer may not be able to run the compilers used to build the system.

Respectfully yours,

Walter S. Leipold III, P.E.

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